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Application Serial No. 10/573,536
Reply to final office action of June 5, 2009

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Remarks and Arguments

Reconsideration is respectfully requested.

Claims 32-67 are pending in the present application before this amendment. By the present amendment, claims 32 and 50 have been amended. No new matter has been added. Because this amendment should put the application in condition for allowance and should not require any additional searching, the examiner is requested to enter the Amendment.

In the office action (page 4), the specification stands objected to as failing to provide sufficient guidance regarding "metadata" that is capable of any logical functionality such as "matching and consuming" for the claimed subject matter.

However, the applicants respectfully disagree, where the amendments to claims 32 and 50 are fully supported by the specification of the present application, which now recites inter alia: --wherein the ~~package-metadata~~ targeting condition metadata is capable of matching targeting the contents to the user terminal and the relation metadata enables to consuming consume a variety of contents with the temporal/spatial relation in the user terminal--.

More specifically, regarding to "consuming" [i.e.; consume] at line 13, page 16 to line 6, page 17 recites as follows (emphasis added):

"Hereafter, the relation metadata will be described. The relation metadata describe relation between the item and component for formation and synchronization between components.

In order to describe the relation metadata, the metadata relation between the component and the item will be described first, hereafter.

A component model can describe diverse 'relations' between the components by referring to Classification Schemes (CS) and using terms such as 'temporal,' 'spatial,' and 'interaction.' The components are

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applied to the items of a package.

The 'relations' between defined components, between items, and between components and items are used to represent how the components, items, or components and items are consumed in an abstract level rather than to represent precise synchronization which requires entire scene description such as SMIL, XMT-0 and BIFS simply by using terms pre-defined in the CS.

For example, a component can be consumed prior to other components by using time-related 'precedes' without the entire scene description.

Particularly, in the targeting and synchronization service, the relation metadata include interaction CS information for informing relative importance of the components, synchronization CS information for informing a temporal sequence for component consumption, and spatial CS information for informing relative location of each component on a presentation such as user interface."

Further, more specifically regarding to "matching" (wherein matching in the claims is amended to "targeting") at lines 21-25 page 8 recites as follows (emphasis added):

"The targeting and synchronization service analyzer 12 analyzes inputted package metadata containing a variety of terminals and user conditions from a PDR 40 and determines a content or a component that is matched with the input conditions"

and additionally to further clarify this feature of "matching"/targeting, which recites as follows at line 3, page 26 to line 22, page 27, (emphasis added):

"Hereafter, the targeting condition metadata will be described. The targeting condition metadata describe usage environment conditions for supporting item/component auto-selection according to a usage environment for targeting.

To describe the targeting condition metadata, the structure of the MPEG-21 DIA, which is used conceptually in the present invention, will be described first.

In order to provide a targeting service that provides more appropriate and efficient user experience for a given usage environment, a package should include a series of usage environment metadata, such as terminal conditions, user conditions, and content conditions. The usage environment metadata are related with a plurality of constitutional

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elements in order to represent usage environment conditions needed for consuming the related constitutional elements precisely.

Although there are a lot of non-standardized metadata which describe the usage environment, a usage environment description tool of the MPEG-21 DIA provides abundant description information on diverse attributes in order to provide adaptation for a digital item for transmission, storing and consumption.

Fig. 6 is a diagram describing a usage environment description tool of the MPEG-21 DIA.

As illustrated in Fig. 6, the tool includes a user type (UserType), a terminal type (TerminalsType), a network type (NetworksType), and a natural environment type (NaturalEnvironmentsType).

The user type (UserType) describes various user characteristics including general user information, usage preference, user history, presentation preference, accessibility characteristic, mobility characteristics, and destination.

The terminal type (TerminalsType) should satisfy consumption and operation restrictions of a particular terminal. The terminal types are defined by a wide variety of terminal kinds and properties. For example, the terminal type is defined by codec capability which includes encoding and decoding capability, device property which include properties of power, storing means and data input/output means, and input-output characteristics which includes display and audio output capabilities."

Accordingly, it is respectfully submitted that the specification adequately provides sufficient guidance regarding "metadata", which is clearly capable of logical functionality such as "matching [i.e.; targeting] and consuming" [i.e.; consume] for the claimed subject matter. Therefore, the applicants respectfully submit that the examiner's rejection for failing to provide antecedent basis for the claimed subject matter discussed above should be withdrawn.

In the office action (page 5), claims 50-67 stand rejected under 35 U.S.C. §101 as lacking patentable utility. In response, the applicants have amended independent claim 50 to be directed to computer-readable medium that is recited in the specification at page 34, lines 25-30. Accordingly, independent claim 50 is now a product claim and

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is specifically tied to an apparatus, i.e., the computer-readable medium, and is therefore statutory under 35 U.S.C. § 101. Therefore, the applicants respectfully request withdrawal of the outstanding rejections.

103(a) Rejections

In the office action (page 7), claims 32-43, 49-61 and 67 stand rejected under 35 U.S.C. §103(a) as being obvious over U.S. Publication No. 2004/0220926 (Lamkin) in view of U.S. Patent No. 7,185,049 (Benitez). The "et al." suffix is omitted from the Lamkin and Benitez reference names. Also, in the office action (page 13), claims 44-48 and 62-66 stand rejected under 35 U.S.C. §103(a) as being obvious over Lamkin in view of Benitez, and further in view of U.S. Patent No. 7,055,168 (Errico). The "et al." suffix is omitted from the Errico reference name.

The applicants have amended claim 32 (and similarly claim 50) to further clarify the presently claimed invention and to traverse the examiner's rejection.

The present invention relates to a package metadata/**targeting condition metadata** and targeting/synchronization service providing system that applies Digital Item Declaration (DID) of a Moving Picture Experts Group (MPEG) 21 to television (TV)-Anytime service. (specification page 1, lines 6-11). More particularly, the present invention provides **targeting condition metadata** for a targeting and synchronization service that can provide a **variety of contents formed of components to diverse terminals in the form of a package** in a targeting and synchronization service providing system. This **targeting condition metadata** includes package description information for selecting a package desired by a user and describing general information on an individual package to check whether the selected package can be

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acquired, and container metadata for describing information on a container which is a combination of diverse packages and formed of a set of items, each of which is a combination of components for each of the respective diverse terminals requesting the content formed of components (specification at page 4, lines 5-19).

More specifically, the **targeting condition metadata of the present invention describes the conditions of a usage environment of a user terminal and is capable of targeting the contents to the user terminal by analyzing the conditions and determining the contents matched with the conditions.** Thus, the content or component is selected **appropriately** for the input conditions of the respective diverse terminal that may be only one or may be a plurality of packages having the components or content for the respective diverse terminal (specification at page 8, lines 21-27).

In order to clarify this aspect of the invention, claim 32 has been amended and now recites inter alia:

—wherein the **package-metadata targeting condition metadata** is capable of **matching targeting** the contents to the user terminal and **the relation metadata enables to consuming consume** a variety of contents with the temporal/spatial relation in the user terminal—.

Nowhere in Lamkin, discloses or suggests the presently claimed invention of claim 32 (and similarly claim 50) as amended. The Benitez and/or Errico reference fails to cure this defect

In contrast, Lamkin receives a “request” for content from a “terminal”, “searches” for a plurality of entities associated therewith from the request, “collects” the plurality of entities and collection metadata, and then eventually downloading the respective entities that meet the criteria of the request from the respective terminal in response to the received request from the terminal. Lamkin must receive a “request”

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for content from a **"terminal"**, then **"search"** for a plurality of entities associated therewith from the request, and finally **"collect"** the plurality of entities because processes of Lamkin is initiated by the **"request"** (No request, no subject to collect). Therefore, the Examiner's assertion, which states "[t]hus Lamkin is able to collect content without a specific request from a user" is respectfully incorrect for the reasons mentioned above.

In contradistinction, the present invention **analyzes** the conditions of a usage environment of the user terminal based on the package metadata (targeting condition metadata which is capable of targeting the contents to the user terminal) and **determines** the contents matched with the conditions to **match** the contents to the user terminal. Therefore, the present invention does not need to request for content, search and collect. The contents in the present invention is not searched and collected. Rather, the contents in the present invention are pre-existed and the pre-existed contents are targeted to the user terminal based on the conditions of a usage environment of the user terminal.

Thus, nowhere in Lamkin teaches or discloses the features of claim 32 of the presently claimed invention, which recites inter alia: --wherein the targeting condition metadata is capable of targeting the contents to the user terminal and the relation metadata enables to consume a variety of contents with the temporal/spatial relation in the user terminal--. Therefore, an indication of allowable subject matter with respect to claim 32 is respectfully requested.

As to claims 33-49, the applicants respectfully submit that these claims are allowable at least since they depend from claim 32, which is now considered to be in

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condition for allowance for the reasons above.

As to independent claim 50, independent claim 50 recites similar features to those found in claim 32. Therefore, for reasons analogous to those argued above with respect to claim 32, claim 50 is patentable over the applied references.

As to claims 51-67, the applicants respectfully submit that these claims are allowable at least since they depend from claim 50, which is now considered to be in condition for allowance for the reasons above for claim 32.

For the reasons set forth above, the applicants respectfully submit that claims 32-67, now pending in this application, are in condition for allowance over the cited references. Accordingly, the applicants respectfully request reconsideration and withdrawal of the outstanding rejections and earnestly solicit an indication of allowable subject matter.

For the reasons set forth above, the applicants respectfully submit that claims 32-67, now pending in this application, are in condition for allowance over the cited references. Accordingly, the applicants respectfully request reconsideration and withdrawal of the outstanding rejections and earnestly solicit an indication of allowable subject matter. This amendment is considered to be responsive to all points raised in the office action. Should the examiner have any remaining questions or concerns, the examiner is encouraged to contact the undersigned attorney by telephone to expeditiously resolve such concerns.

When issuance of a Notice of Allowance is proper in the next action, the examiner is authorized to cancel the withdrawn claims, for which the applicant reserves

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the right to file a divisional application. Should the examiner have any remaining questions or concerns, the examiner is encouraged to contact the undersigned attorney by telephone to expeditiously resolve such concerns.

Respectfully submitted,

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